REMARKS

Applicant appreciates the Examiner's thorough examination of the present application as evidenced by the Office Action. Claims 1-21 stand rejected under 35 U.S.C. Sec. 102(b) as anticipated by U.S. Patent No. 5,495,242 to Kick et al. (Kick). In response to these rejections, Applicant has amended Claims 1, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, and 21 to clarify patentable distinctions in these claims over Kick. Furthermore, Applicant has canceled Claims 2, 4, 7, 10, 13, 16, and 19. No new matter has been introduced by these amendments. Accordingly, Applicant requests reconsideration and allowance of the pending claims in view of the above amendments and for at least the reasons that will now be explained.

Replacement Figure 2 Overcomes the Drawing Objections

Replacement Figure 2 now shows a vertical axis labeled "gradient values" and a horizontal axis labeled "delayed values", corresponding to the description at page 5, line 30 to page 6, line 1 of the application specification. Accordingly, Applicant requests withdrawal of the drawing objections.

Amended Specification Overcome the Objections

The application specification has been amended to correct the references to the curves shown in Figure 2. Applicant requests withdrawal of the objections in view of the amended specification.

Amended Independent Claims 1, 9, and 18

Independent Claim 1 has been amended based on Claim 2 (now canceled) to further clarify that the presence of a noise component is determined based on "an amount of variation of the gradient values over time." As identified by the Examiner, the first block in Figure 9 in Kick shows that a "sum of derivatives [of RXX] is found." (*See* Office Action, para. 6.) In particular, Kick discloses that a "Yelp" early warning sound is distinguished from a "Wail" early warning sound by summing the derivatives of a microphone signal, and comparing the sum to various threshold

values. In contrast, Claim 1 determining the presence of a noise component based on "an amount of variation of the gradient values over time."

Summing the derivatives and comparing the sum to threshold values, as disclosed by Kick, is different than determining "an amount of variation of gradient values over time." For example, summing the derivatives and comparing that sum to threshold values may not enable the wind condition shown by graphs 210a and 210b in Figure 2 to be distinguished from the no-wind condition shown by graphs 200a and 200b. In contrast, as described on pages 6 and 7 of the present application, determining the amount of variation of gradient values over time can distinguish between the signals in 210a and 210b from 200a and 200b and, thereby, allow detection of wind/no-wind conditions.

For at least these reasons, Applicant submits that Kick does not disclose each and every recitation of Claim 1, and therefore does not anticipate Claim 1.

Amended independent Claims 9 and 18 contain similar recitations to amended Claim 1, and therefore are submitted to be patentable over Kick for at least the reasons explained above for Claim 1. Accordingly, Applicant requests reconsideration and allowance of amended independent Claims 1, 9, and 18.

Amended Independent Claim 3

Claim 3 has been rewritten from dependent to independent form while reciting "determining the presence of a noise component in a microphone signal based on whether *a rate of change of the gradient values satisfies a threshold value*" (emphasis added). In the Office Action, the Examiner indicates that Kick discloses this limitation in Figure 9. (*See* Office Action para. 8.) However, as explained above, Kick shows and describes with regard to Figure 9 that a sum of derivatives is used to distinguish between "Yelp" and "Wail" early warning sounds. Kick does not make any determinations based on "a rate of change of gradient values." Furthermore, Kick does not make any determinations based on whether such *rates of change of gradient values satisfy a threshold value*. For at least these reasons, Applicant submits that

Kick does not disclose each and every recitation of Claim 3, and therefore does not anticipate Claim 3.

Accordingly, Applicant requests reconsideration and allowance of amended Claim 3.

Amended Independent Claims 5, 11, and 20

Claim 5 has been rewritten from dependent to independent form to recite *inter alia* that sampled values of the microphone signal are delayed by a range of delay values, and that the autocorrelation coefficients are generated based on the delayed sampled values of the microphone signal.

In the Office Action, the Examiner suggests that these recitations of Claim 5 are disclosed by the A/D converter 30 and "Figure 7" of Kick. (*See* Office Action, para. 9.) However, Figure 7A shows that Kick's autocorrelation is formed from frequency characteristics of the received signal over time. The process of determining frequency characteristics includes converting a frame of sampled values in the time domain to the frequency domain, as described in Kick, col. 4, lines 61-63 and Figure 6. Kick then forms autocorrelation values by correlating the frequency domain characteristics of the sampled values with itself for various time lags as shown in Figure 7A.

Kick does not describe or suggest that autocorrelation coefficients are formed "by generating sampled values of the microphone signal that are delayed by a range of delay values", as is recited in Claim 5.

Furthermore, Claim 5 recites that determining the presence of a noise component is "based on whether the gradient values are equal to a defined value for delay values that are substantially non-zero." As explained above with regard to Claim 1, Figure 9 of Kick describes that a sum of derivative values is compared to a threshold value to distinguish between "Yelp" and "Wail" early warning sounds. Kick does not make any determinations "based on whether the gradient values are about equal to a defined value *for delay values that are substantially non-zero*."

For at least these reasons, Applicant submits that Kick does not disclose each and every recitation of Claim 5, and therefore does not anticipate Claim 5.

Amended independent Claims 11 and 20 contain similar recitations to amended Claim 5, and therefore are submitted to be patentable over Kick for at least the reasons explained above for Claim 5. Accordingly, Applicant requests reconsideration and allowance of amended independent Claims 5, 11, and 20.

Amended Dependent Claims 6, 12, and 21

Claim 6 has been amended to depend from independent Claim 5, and recites "determining the presence of the noise component comprises determining whether the gradient values have a *threshold crossing for delay values that are substantially non-zero*." (emphasis added). As described on pages 6 and 7 of the application specification with regard to Figure 2, the inventor of the present application has discovered that gradient values that are generated from a microphone signal having a wind component (curves 210a-b) have zero crossings at non-zero delay values, while, in sharp contrast thereto, gradient values generated from a microphone signal not having a wind component (curves 200a-b) do not have zero crossings for non-zero delay values.

The Office Action suggests that Figure 8 of Kick discloses these recitations of Claim 6. However, Kick's Figure 8 illustrates four plots of how autocorrelation values can change over time for "Wail," "Mech Wail," "Yelp," and HyperYelp" early warning sounds. Neither in Figure 8 nor elsewhere does Kick teach or suggest that the presence of a noise component is determined by determining whether gradient values have a threshold crossing *for delay values that are substantially non-zero*.

Dependent Claims 12 and 21 contain similar recitations to amended Claim 6, and therefore are submitted to be patentable over Kick for at least the reasons explained above for Claim 6. Accordingly, Applicant requests reconsideration and allowance of amended independent Claims 6, 12, and 21.

CONCLUSION

In view of the above amendments and remarks, Applicant respectfully requests withdrawal of all objections and rejections of all remaining claims and the allowance of all remaining claims in due course. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

Respectfully submitted,

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Date of Signature: August 9, 2007